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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/220,153	12/23/1998	PETER REIMER	2981/USA/SMO	3858
32588	7590	04/18/2005	EXAMINER	
APPLIED MATERIALS, INC. 2881 SCOTT BLVD. M/S 2061 SANTA CLARA, CA 95050			BUEKER, RICHARD R	
			ART UNIT	PAPER NUMBER
			1763	
DATE MAILED: 04/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/220,153

Applicant(s)

REIMER ET AL.

Examiner

Richard Bueker

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004 and 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5, 22, 30, 42, 50, 59 and 108-112 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 42, 50 and 59 is/are allowed.
- 6) ☒ Claim(s) 5, 22, 30 and 108-112 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/21/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

The amendment after final filed Dec. 17, 2004 has been entered. That amendment overcomes all of the rejections contained in the Final rejection, and therefore the Final rejection has been removed.

The IDS filed Jan. 18, 2005 has been entered in view of its accompanying certification.

The IDS cited WO 98/48168 to Lorimer, published on Oct. 29, 1998, which was based on U.S. application 08/844,178, now abandoned, which was a C.I.P. of U.S. application 08/332,564, now U.S. Pat. No. 5,685,963.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lorimer I (WO 98/48168) (Figs. 1 and 10) or Lorimer II (5,685,963) (Fig. 1). Lorimer I and II disclose an apparatus for processing a substrate comprising a chamber with a mechanical pump abutting the chamber. Lorimer I and II teach that argon gas is supplied from source 54 through a

supply line into the process chamber, and this gas supply system is a gas distributor that distributes gas in the chamber, whereby a substrate supported in the chamber is processed by the argon process gas introduced through the gas distributor into the process chamber. The mechanical pump recited by Lorimer I or II is inherently a "pre-vacuum" pump. Regarding the phrase "pre-vacuum pump", it is noted that Beyer (5,944,049) (col. 3, lines 46-54) indicates that this term includes a variety of mechanical pumps that are capable of reducing a chamber pressure from atmospheric to the level of vacuum at which a high vacuum pump can be employed.

Claims 30 and 108-112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorimer I (WO 98/48168) or Lorimer II (5,685,963), either taken in view of Beyer (5,944,049). Beyer teaches (see abstract, and col. 1, lines 34-58, for example) that it is desirable to eliminate the conventionally used throttle valve of a mechanical pump (see col. 3, lines 39-54, and particularly lines 51-54, for example) by providing a pump controller for controlling the rotational speed of the mechanical pump that exhausts evacuated gas to atmospheric pressure. It would have been obvious to control the speed of the mechanical pump of Lorimer II or II because Beyer teaches that this enables the elimination of the throttle valve.

Claims 30, 108 and 109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorimer I (WO 98/48168) or Lorimer II (5,685,963), either taken in view of Krueger (5,972,183). Lorimer I and II disclose the use of in situ getter pumps that are capable of operating at different pumping speeds according to a signal from a pump controller, such as partial pressure of water vapor (page 21, lines 23-27 of

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Lorimer I, for example). Lorimer II and I don't discuss the details of how the getter pumps are mounted to the chamber. Krueger (see Fig. 1 and col. 5, line 62 to col. 6, line 11, for example), teaches that in situ getter pumps can be mounted abutting the wall of the chamber. It would have been obvious to one skilled in the art to mount the getter pump of Lorimer II or II so that it abuts the chamber, because Krueger teaches that a getter pump can successfully be operated when mounted in that position. It is noted that claims 30, 108 and 109 don't incorporate any limitation relating to exhausting evacuated gas to atmospheric pressure.

Claims 42, 50 and 59 are considered allowable over the prior art of record.

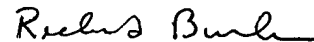
The submission by applicants regarding the Feb. 16 and 17 telephone conversations is noted and considered to be an accurate description thereof. The examiner subsequently conferred with Greg Mills, supervisor of Art Unit 1763, regarding the Lorimer I and Beyer references, and it was determined at that time that the above rejection citing Beyer should be made.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parvis Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Richard Bueker
Primary Examiner
Art Unit 1763